ABSTRACT OF THE DISCLOSURE

A metal oxide semiconductor transistor includes a semiconductor substrate; a source area formed in a device area of the semiconductor substrate; a drain area formed in the device area; a gate layer formed on and across the device area between the source area and the drain area; a control gate layer; and a diffusion area formed in the device area between the gate area and the control gate area. The control gate layer has a first part including a first end of the control gate layer and a second part including a second end of the control gate layer.

The first part is formed on the device area between the source area and the gate layer. The first end is disposed so that there is a gap between the first end and an edge of the device area.